

(g) *Battens and wedges.* (1) Battens and wedges shall be efficient and in good condition. Wedges shall be of tough wood or other equivalent material. They shall have a taper of not more than 1 in 6 and shall be not less than ½-inch thick at the toes.

(h) *Tarpaulins.* (1) At least two layers of tarpaulin in good condition shall be provided for each hatchway in positions 1 and 2.

(2) The tarpaulins shall be waterproof and of ample strength. They shall be of a material of at least a standard weight and quality as approved by the assigning and issuing authority.

(i) *Security of hatchway covers.* (1) For all hatchways in position 1 or 2, steel bars or other equivalent means shall be provided in order efficiently and independently to secure each section of hatchway covers after the tarpaulins are battened down. Hatchway covers of more than 4.9 feet in length shall be secured by at least two such securing appliances.

[CGFR 68-60, 33 FR 10060, July 12, 1968, as amended by CGFR 68-126, 34 FR 9014, June 5, 1969]

§ 42.15-30 Hatchways closed by weathertight covers of steel or other equivalent material fitted with gaskets and clamping devices.

(a) *Hatchway coamings.* At positions 1 and 2 the height above the deck of hatchway coamings fitted with weathertight hatch covers of steel or other equivalent material fitted with gaskets and clamping devices shall be as specified in § 42.15-25(a)(1). The height of these coamings may be reduced, or the coamings omitted entirely, on condition that the assigning authority is satisfied that the safety of the vessel is not thereby impaired in any sea conditions. Where coamings are provided they shall be of substantial construction.

(b) *Weathertight covers.* (1) Where weathertight covers are of mild steel the strength shall be calculated with assumed loads not less than 358 pounds per square foot on hatchways in position 1, and not less than 255 pounds per square foot on hatchways in position 2, and the product of the maximum stress thus calculated and the factor of 4.25 shall not exceed the minimum ultimate

strength of the material. They shall be so designed as to limit the deflection to not more than 0.0028 times the span under these loads. Mild steel plating forming the tops of covers shall be not less in thickness than one percent of the spacing of stiffeners or 0.24 inches if that be greater. The provisions of § 42.15-25(b)(4) are applicable for vessels of not more than 328 feet in length.

(2) The strength and stiffness of covers made of materials other than mild steel shall be equivalent to those of mild steel to the satisfaction of the assigning authority.

(c) *Means for securing weathertightness.* (1) The means for securing and maintaining weathertightness shall be to the satisfaction of the assigning authority.

(2) The arrangements shall ensure that the tightness can be maintained in any sea conditions. For this purpose tests for tightness shall be required at the initial surveys, and may be required at periodical surveys and at annual surveys or at more frequent intervals.

[CGFR 68-60, 33 FR 10061, July 12, 1968, as amended by CGFR 68-126, 34 FR 9014, June 5, 1969]

§ 42.15-35 Machinery space openings.

(a) Machinery space openings in position 1 or 2 shall be properly framed and efficiently enclosed by steel casings of ample strength, and where the casings are not protected by other structures their strength shall be specifically considered. Access openings in such casings shall be fitted with doors complying with the requirements of § 42.15-10(a), the sills of which shall be at least 23½ inches above the deck if in position 1, and at least 15 inches above the deck if in position 2. Other openings in such casings shall be fitted with equivalent covers, permanently attached in their proper positions.

(b) Coamings of any fiddley, funnel, or machinery space ventilators in an exposed position on the freeboard or superstructure deck shall be as high above the deck as is reasonable and practicable. Fiddley openings shall be fitted with strong covers of steel or other equivalent material permanently

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attached in their proper positions and capable of being secured weathertight.

[CGFR 68-60, 33 FR 10061, July 12, 1968]

§ 42.15-40 Miscellaneous openings in freeboard and superstructure decks.

(a) Manholes and flush scuttles in position 1 or 2 or within superstructures other than enclosed superstructures shall be closed by substantial covers capable of being made watertight. Unless secured by closely spaced bolts, the covers shall be permanently attached.

(b) Openings in freeboard decks other than hatchways, machinery space openings, manholes, and flush scuttles shall be protected by an enclosed superstructure, or by a deckhouse or companionway of equivalent strength and weathertightness. Any such opening in an exposed superstructure deck or in the top of a deckhouse on the freeboard deck which gives access to a space below the freeboard deck or a space within an enclosed superstructure shall be protected by an efficient deckhouse or companionway. Doorways in such deckhouses or companionways shall be fitted with doors complying with the requirements of § 42.15-10(a).

(c) In position 1 the height above the deck of sills to the doorways in companionways shall be at least 23½ inches. In position 2 they shall be at least 15 inches.

[CGFR 68-60, 33 FR 10061, July 12, 1968, as amended by CGFR 68-126, 34 FR 9014, June 5, 1969]

§ 42.15-45 Ventilators.

(a) Ventilators in position 1 or 2 to spaces below the freeboard decks or decks of enclosed superstructures shall have coamings of steel or other equivalent material, substantially constructed and efficiently connected to the deck. Where the coaming of any ventilator exceeds 35½ inches in height it shall be specially supported.

(b) Ventilators passing through superstructures other than enclosed superstructures shall have substantially constructed coamings of steel or other equivalent material at the freeboard deck.

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(c) Ventilators in position 1 the coamings of which extend to more than 14.8 feet above the deck, and in position 2 the coamings of which extend to more than 7.5 feet above the deck, need not be fitted with closing arrangements unless specifically required by the assigning authority.

(d) Except as provided in paragraph (c) of this section ventilator openings shall be provided with efficient weathertight closing appliances. In vessels of not more than 328 feet in length the closing appliances shall be permanently attached; where not so provided in other vessels, they shall be conveniently stowed near the ventilators to which they are to be fitted. Ventilators in position 1 shall have coamings of a height of at least 35½ inches above the deck; in position 2 the coamings shall be of a height at least 30 inches above the deck.

(e) In exposed positions, the height of coamings may be required to be increased to the satisfaction of the assigning authority.

[CGFR 68-60, 33 FR 10061, July 12, 1968, as amended by CGFR 68-126, 34 FR 9014, June 5, 1969]

§ 42.15-50 Air pipes.

(a) Where air pipes to ballast and other tanks extend above the freeboard or superstructure decks, the exposed parts of the pipes shall be of substantial construction; the height from the deck to the point where water may have access below shall be at least 30 inches on the freeboard deck and 17½ inches on the superstructure deck. Where these heights may interfere with the working of the vessel, a lower height may be approved, provided the assigning authority is satisfied that the closing arrangements and other circumstances justify a lower height. Satisfactory means permanently attached, shall be provided for closing the openings of the air pipes.

[CGFR 68-60, 33 FR 10062, July 12, 1968, as amended by CGFR 68-126, 34 FR 9014, June 5, 1969]

§ 42.15-55 Cargo ports and other similar openings.

(a) Cargo ports and other similar openings in the sides of vessels below the freeboard deck shall be fitted with